

REMARKS

Applicant respectfully requests favorable reconsideration of this application, as amended. In this amendment, Claims 2 and 37 have been canceled without prejudice, and Claims 38 and 39 are new; accordingly, Claims 1, 3, 5–17, 19–21, 24–36, 38 and 39 are pending.

Drawing Objection

The drawings were objected to under 37 C.F.R. § 1.83(a) because the “pre-fabricated floor module ... comprising supporting beams” is allegedly not shown in the figures. Applicant traverses, and submits that this feature is clearly depicted in FIG. 4. *See*, also, Paragraph 0010. Accordingly, Applicant respectfully requests that the examiner reconsider and withdraw the drawing objection.

New Matter Objection and Written Description Rejections

The Amendment filed on March 2 was objected to under 35 U.S.C. § 132(a) because it allegedly introduced new matter into the disclosure, and Claims 1–20 were rejected under 35 U.S.C. § 112, 1st paragraph, as failing to comply with the written description requirement. Applicant traverses. With respect to the “EE rack,” Applicant submits that one skilled in the art would understand that the term “EE rack” is an abbreviation for “electronic equipment rack.” *See*, e.g., U.S. Patent Application Publication 2006/0231681 at Paragraph 0024; NASA Contractor Report 165700 (Page 11, lines 6–7);¹ etc. With respect to the features recited by Claim 27, Applicant kindly directs the examiner’s attention to Paragraph 0010, which explicitly discloses these features. Accordingly, Applicant respectfully requests that the examiner reconsider and withdraw the new matter objection and the § 112, 1st paragraph rejections.

Indefiniteness Rejection

Claim 7 was rejected under 35 U.S.C. § 112, 2nd paragraph, as being indefinite, and has been amended accordingly. Applicant respectfully submits that the indefiniteness rejection has been overcome.

Novelty and Obviousness Rejections

Claims 21, 24–26 and 33–35 were finally rejected under 35 U.S.C. § 102(e) as being anticipated by Prochaska (US 6,659,402). Claims 1 and 19 were rejected under 35 U.S.C.

¹ *See*, http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19810014526_1981014526.pdf.

§ 103(a) as being unpatentable over McDonough (US 3,381,921), Claims 1–3, 5–17 and 19–20 were rejected as being unpatentable over McDonough in view of Prochaska, and in further view of Pompei (US 5,083,727), Claim 25 was rejected as being unpatentable over Prochaska, Claims 27–31 were rejected as being unpatentable over Prochaska in view of McDonough, and Claims 32 and 36 were rejected as being unpatentable over Prochaska in view of McDonough, and in further view of Grueber (US 3,753,541).

In the interests of securing an expedited Notice of Allowance, and without acceding to the rejections, Claims 1 and 19 have been amended to recite certain features of the claimed invention more clearly, Claim 33 has been amended for reasons unrelated to patentability, i.e., to correct a typographic error, Claims 2 and 37 have been canceled without prejudice, and new Claims 38 and 39 have been added. Support may be found, for example, in the Specification at Paragraphs 0009, 0010, 0012, 0017, 0031, 0033, etc.; FIGS. 2, 3, etc.; no new matter has been added. Applicants respectfully submit that none of the cited references, taken either singly or in combination, teaches or suggests the features recited by the pending claims.

Claims 1 and 19 Are Allowable over McDonough, Prochaska and Pompei

Claim 1 recites, *inter alia*, a functional unit that includes at least one connector selected from the group consisting of pipe connectors and connection leads, and that the at least one connector is connected to a corresponding pipe connector or connection lead provided on or below the cargo compartment floor. Similarly, Claim 19 recites, *inter alia*, a functional unit that includes at least one connector selected from the group consisting of pipe connectors and connection leads, and connecting the at least one connector to a corresponding pipe connector or connection lead provided on or below the cargo compartment floor. None of the cited references, taken either singly or in combination, teaches or suggests these features.

In support of these rejections, the Office Action takes Official Notice that electrical equipment racks are often shipped by air from an origin to a destination in the form of cargo. The Office Action then alleges that it would be obvious to mount a functional unit onto a pallet outside of an aircraft, load the pallet into the aircraft, transport the pallet over the cargo floor and fix the pallet and functional unit at a destination site in the cargo compartment.

While it may indeed be known to transport functional units as cargo in an aircraft as alleged by the Office Action, Applicant respectfully submits that it neither known nor obvious to connect connectors or connecting leads of such a functional unit to corresponding connectors

and connecting leads provided on or below the cargo compartment floor, as recited by Claims 1 and 19. Fundamentally, McDonough fails to disclose these features.

With respect to Prochaska, this reference fails to disclose specified functional units on pallets. Nor does Prochaska teach or suggest a connection of connectors or connecting leads of such a functional unit to corresponding connectors or connecting leads provided on or below the cargo compartment floor. Instead, Prochaska discloses a modularized aircraft seating system, the seat structures being provided on base panels, the base panels having male / female connectors for coupling with adjacent base panels to provide e.g. air conditioning and electrical systems between the various seat assemblies. *See, e.g., Col. 4:43–61; FIGS. 1, 3; etc.*

With respect to Pompei, this reference likewise fails to disclose functional units on pallets. Nor does Pompei recognize the advantages associated therewith with respect to simplifying the assembly of an aircraft and simplifying the task of later maintenance / replacement of such functional units. As exemplified by FIGS. 3a-d, Pompei explicitly teaches that the functional units are secured directly to the floor of the aircraft. *See, e.g., Col. 2:13–16.* Furthermore, Applicant respectfully submits that one skilled in the art would not combine the teachings of Pompei with the significantly different teachings of either of McDonough or Prochaska.

In short, none of the cited references foresees or suggests the claimed subject matter, or the advantages associated with the provision of water / waste-water tanks or electrical equipment racks (normally regarded as permanently installed parts of an aircraft ala' Pompei) on pallets in conjunction with corresponding pipe connectors / connection leads provided on or below the cargo compartment floor as regards not only simplifying the construction of an aircraft, but also greatly facilitating maintenance work on the aircraft / functional units. *See, e.g., Specification at Paragraph 0005, etc.*

While the Office Action alleges, with respect to dependent Claim 37 (now canceled), that the latter features constitute an obvious modification (Pages 14–15), Applicant respectfully disagrees. As discussed above, Pompei is not properly combinable with McDonough and/or Prochaska. McDonough fails to teach or suggest any such functional units or connections thereof to the aircraft, and Prochaska merely teaches that any necessary connections are made by the floor elements themselves.

Consequently, Claims 1 and 19 are allowable over the cited references.

Claim 21 and 33 Are Allowable over Proschka

Applicants respectfully traverse the merits of these rejections. Claim 21 recites a pre-fabricated floor module for installation into an aircraft that includes, *inter alia*, a floor element and supporting beams. Claim 33 similarly recites installation of prefabricated floor modules into an aircraft, each pre-fabricated floor module comprising, *inter alia*, a floor element and supporting beams. In questioning the novelty of these features vis-à-vis Prochaska, the Office Action alleges that supporting beams inherently support a floor in modern aircraft. This allegation, however, does not render the aforementioned features of Claims 21 and 33 unpatentable.

As discussed in the Specification at Paragraph 0010, for example, the essence of the aforementioned features of Claim 21 is that the floor element and the supporting beams are assembled outside the aircraft to provide a pre-fabricated floor module for installation into the aircraft. This construction follows unambiguously from the term "pre-fabricated" in conjunction with the inherently motional expression "for installation into an aircraft," as well as the feature "wherein the prefabricated floor modules [subjected to or configured for installation into an aircraft] comprises a supporting beams connected to the floor elements." Consequently, Applicant submits that the Office Action's response, on Page 18, is without merit. Similar considerations hold for Claim 33.

Consequently, Claims 21 and 33 are allowable over the cited references.

Additionally, for the sake of expediting the examination proceedings and with no prejudice as regards the patentability of Claims 21 and 33 over the cited prior art, Claims 38 and 39 have been added to underline the inventive prefabrication of the floor module as a whole, i.e., including connection of the floor elements to the supporting beams, outside of the aircraft.

Claim 27 Is Allowable over McDonough and Proschka

Applicants respectfully traverse the merits of these rejections. In supporting the rejection of Claim 27, the Office Action refers to the rejection of Claim 21, alleging that Prochaska discloses all of the structural features recited by Claim 27 and arguing that supporting beams that are connected to the aircraft assembly and that support the floor are inherent to modern aircraft. With respect to Claim 27, the Office Action alleges that it would be obvious to assemble such structural features outside the aircraft. Applicant submits that the arguments relating to Claim 21 are incompatible with the arguments relating to Claim 27.

Applicant agrees that supporting beams that are connected to the aircraft assembly and that support the floor are well known in the art. However, Applicant respectfully submits that such supporting beams consistently form an integral part of the aircraft structure, i.e., are consistently assembled to the fuselage before any flooring is mounted thereon. Applicant recognizes no teaching or suggestion in McDonough that such [floor] supporting beams could be attached to floor elements outside of an aircraft.

In other words, Applicant respectfully submits that neither Prochaska nor McDonough teaches or suggests the claimed assembly of floor elements to supporting beams, the supporting beams being configured for connection to the skin of an aircraft to form at least part of a floor of a cargo compartment of the aircraft, the assembly being carried out outside the aircraft. Instead, at best, Prochaska and McDonough teach floor elements that can be located on top of a passenger / cargo compartment floor.

Consequently, Claim 27 is allowable over the cited references.

Conclusion

Accordingly, Applicant submits that Claims 1, 19, 21, 27 and 33 are allowable over the cited references. Furthermore, Claims 2, 3, 5–17, depending from Claim 1, Claim 20, depending from Claim 19, Claims 24–26, depending from Claim 21, Claims 28–32, depending from Claim 27, and Claims 34–36, depending from Claim 33, are also allowable, at least for the reasons discussed above.

Applicant also submits that the cited references fail to teach or suggest many of the features recited by the dependent claims, and, consequently, that these claims are independently allowable.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance and should now be passed to issue.

A Notice of Allowance is respectfully solicited.

If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

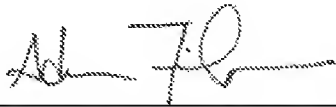
The Commissioner is hereby authorized to charge any fees and to credit any overpayments that may be required by this paper under 37 C.F.R. §§ 1.16 and 1.17 to Deposit Account No. 50-2036.

Respectfully submitted,

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